



PPEC Low Profile Pressure Powered Pump 'The Eliminator'

Available types

PPEC cast iron body and cover.
PPEC is supplied with bronze check valves.

Limiting conditions

Body design conditions 8.6 bar g (up to 232 °C)

Maximum cold hydraulic test 13 bar g

Operating inlet pressure

Steam, air or gas 0.34 to 8.6 bar g.

Total lift or back pressure which must be below operating pressure to allow capacity to be achieved, = height (H) in metres x 0.0981 plus pressure (bar g) in return line, plus downstream piping friction pressure drop in bar calculated at a flow rate of the lesser of six times the actual condensate rate or 6815 L/h.

Filling head recommended above the pump is 0.15 m.

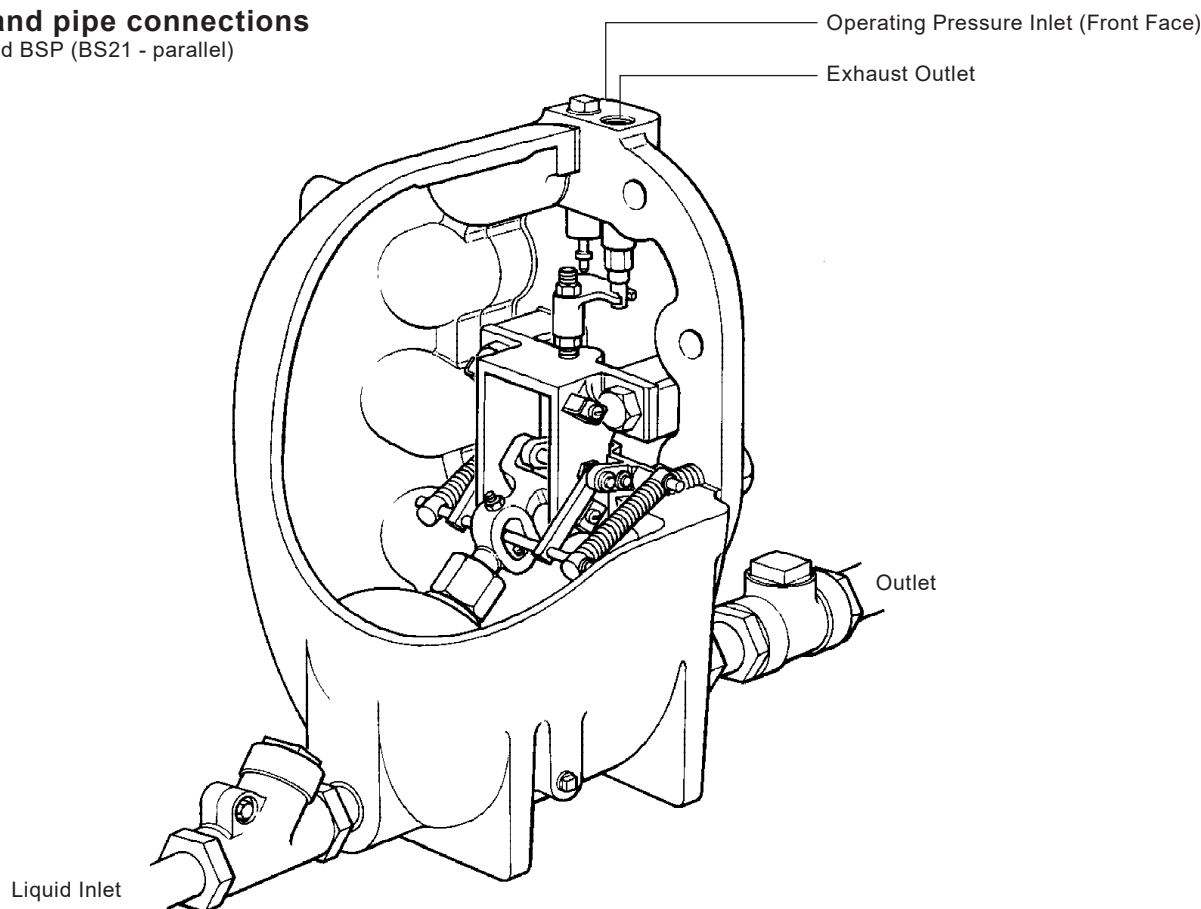
Minimum filling head 0.m (at top of pump) gives a reduced capacity. Standard pump operates with liquids of specific gravity 1.0 down to 0.9, specify when ordering for liquid specific gravity from 0.9 to 0.65. Pump discharge per cycle:- 15 L. Each cycle at a maximum flow rate of 6815 L/h.

Steam consumption — 3 kg. of steam per 1000 kg liquid pumped.

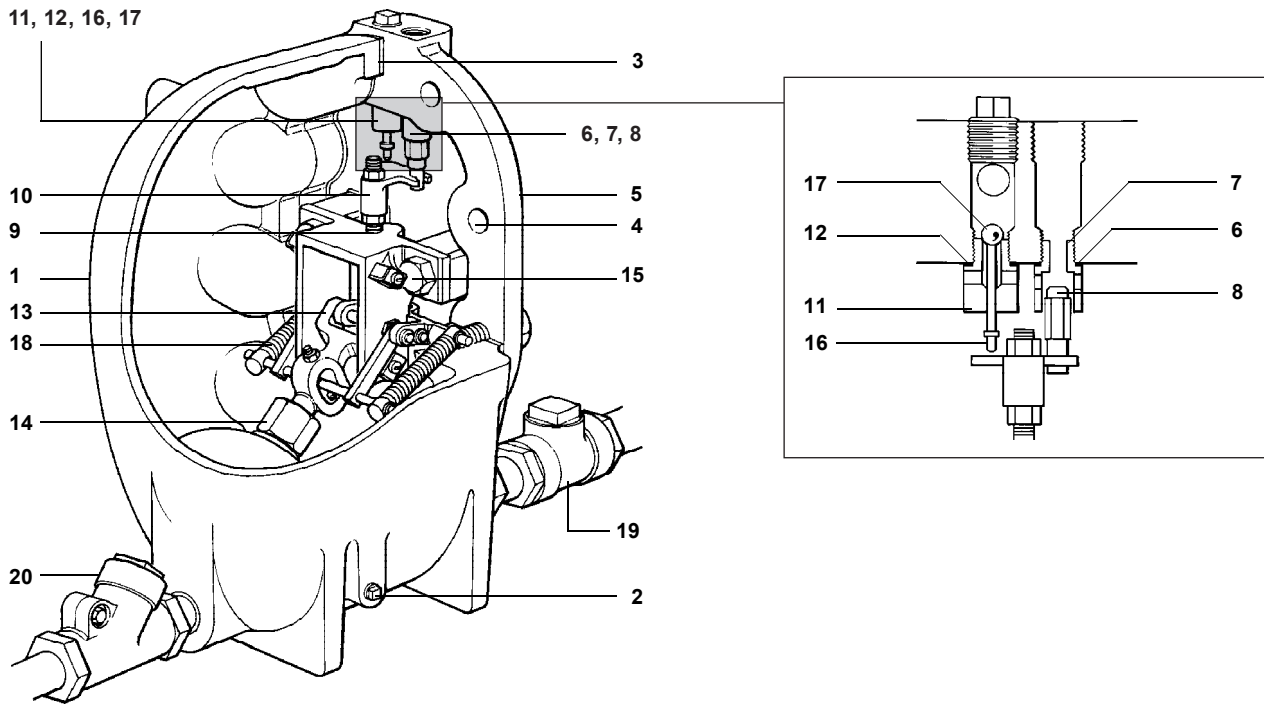
Air consumption — 6230 Ln per 1000 kg liquid pumped.

Sizes and pipe connections

1" Screwed BSP (BS21 - parallel)



Materials



No.	Part	Material	
1	Body	Cast Iron	ASTM A126 Class B
2	Plug 1½"	Forged Steel	ASTM A105
3	Cover Gasket	Graphite	Union Carbide GHP
4	Cover Screws ¾" - 10 x 1¾"	Steel	ASTM A449
5	Cover	Cast Iron	ASTM A126 Class B
6	Exhaust Valve Seat Gasket	Stainless Steel	AISI 301
7	Exhaust Valve Seat	Stainless Steel	AISI 303
8	Exhaust Valve Head	Stainless Steel	AISI 303
9	Push Rod	Stainless Steel	AISI 303
10	Valve Head Actuator	Cast Stainless Steel	ASTM A743 Gr. CF-16F
11	Inlet Valve Seat	Stainless Steel	AISI 303
12	Inlet Valve Seat Gasket	Stainless Steel	AISI 302
13	Push Rod Actuator	Stainless Steel	AISI 304
14	Float & Arm	Stainless Steel	AISI 304
15	Mechanism Casting	Cast Stainless Steel	ASTM A 743 Gr. CF-16F
	Screws ½" - 13 x 1¼"	Stainless Steel	AISI 304
16	Inlet Valve Stem	Stainless Steel	AISI 303
17	Inlet Valve Head	Stainless Steel	AISI 440
18	Spring	Stainless Steel	AISI 316
19	Check Valve (outlet)	Bronze with bronze disc	
20	Check Valve (inlet)	Bronze with teflon disc	

Capacity - Multiplying Factors for other Filling Heads

	Filling Head (m)				
Capacity	0	0.15	0.3	0.6	0.9
Multiplying Factors	.7	1.0	1.1	1.3	1.5

Capacity - Multiplying Factors for Motive Gas Supplies (other than steam)

10%	20%	30%	40%	50%	60%	70%	80%	90%	% Backpressure vs. Motive Pressure (BP/MP)
1.10	1.13	1.16	1.20	1.25	1.30	1.35	1.40	1.45	Capacity Multiplying Factors

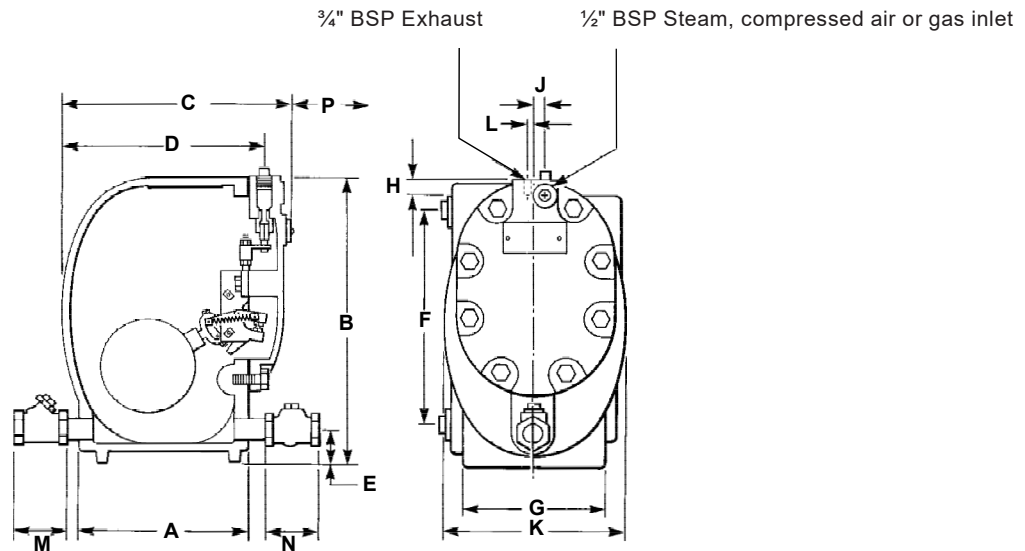
Capacity

Capacities in kg/h when installed with recommended 0.15m filling head above top of pump. (Liquids specific gravity 0.9 to 1.0.)

Note: To achieve rated capacity, pump must be installed with check valves as supplied by Spirax Sarco. Use of a substitute check valve may affect the performance of the pump.

Operating Inlet Pressure bar g	Total Lift or Back Pressure bar g	Capacity (kg/h)
8.6	1.0	952
8.6	2.8	862
8.6	4.1	771
6.9	1.0	952
6.9	2.8	816
6.9	4.1	726
5.2	1.0	952
5.2	2.8	771
5.2	4.1	590
3.4	0.69	907
3.4	1.7	771
3.4	2.8	635
1.7	0.34	907
1.7	0.69	771
1.7	1.0	635
0.69	0.14	862
0.69	0.34	726
0.34	0.14	680

Dimensions/weights (approximate) in mm and kg



														Weight	
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Pump	C.V.
279	480	371	333	53	356	229	28	16	292	16	91	86	305	68 kg	3.2 kg

Note: Cover/Mechanism withdrawal distance - 0.3m.

Optional extras

Flow counter for measuring liquid pumped.

The upper 1½" API plugged connection in the pump body can be used for connecting the flow counter. If desired, a ½" connection can be provided on the top of the body for connecting the flow counter.

Specify when ordering. The flow counter must be mounted vertically and can only be used when pump exhaust is vented. Gauge glass with brass cocks.

Installation

For best operation any flash steam must be vented or condensed ahead of pump inlet.

Full details are given in the Installation Instructions supplied with each pump.

How to specify

1 - Spirax Sarco Low Profile Pressure Powered Pump type PPEC with cast iron body complete with bronze check valves screwed BSP.

Note: If you are in any doubt about the size of pump required or if the conditions are unusual we will be glad to advise you if you will give us the answers to the following questions:-

- 1) Nature of liquid to be pumped.
- 2) Temperature of liquid to be pumped.
- 3) Quantity to be pumped (L/h).
- 4) Initial lift, horizontal distance and net effective lift (i.e. initial lift less subsequent fall in discharge line).
- 5) Operating medium (steam, compressed air or gas).
- 6) Operating pressure available.
- 7) The pump is generally used to drain water from a vented receiver but under certain circumstances can drain a unit from under steam pressure or vacuum. State which.

Spare Parts

Available spares

Cover Gasket	B
Float	F
Brass Inlet Check Valve	M
Brass Outlet Check Valve	M
Cover & Complete Mechanism Assembly	A

